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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,482	08/24/2006	Akihiko Nishio	L9289.06184	8949
52989 7590 11/29/2007 STEVENS, DAVIS, MILLER & MOSHER, LLP 1615 L. STREET N.W. SUITE 850 WASHINGTON, DC 20036			EXAMINER NGUYEN, LEE	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 11/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,482

Applicant(s)

NISHIO ET AL.

Examiner

LEE NGUYEN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 8 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 5-7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The IDS filed 8/24/06 has been considered and recorded in the file.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the method claim has no steps.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Doi et al. (US 2004/0185893), referred to as Doi hereinafter.

Regarding claim 1, Doi teaches a mobile station apparatus (fig. 1, numeral 7), comprising: a plurality of antennas 7a, 7b that receives both a signal D transmitted from a first base station 1 and another signal U transmitted from a second base station 2 of an adjacent cell that is adjacent to a cell of the first base station 1; a selecting section that selects an antenna that causes lowest interference in the adjacent cell from among the plurality of antennas (minimize interference from BS2, para [0023], [0057]); and a transmission section that transmits a signal to the first base station from the selected antenna (7a used for transmit uplink for BS 1, para [0023], [0057]).

Regarding claim 4, Doi also teaches further comprising: a measuring section (not shown) that measures reception power of the signal transmitted from the second base station for each of the plurality of antennas that the mobile station has, wherein as the antenna that causes the lowest interference in the adjacent cell, the selecting section selects an antenna with the lowest reception power measured in the measuring section from among the plurality of antennas that the mobile station has (see para [0057]).

Regarding claim 8, the method claim is interpreted and rejected for the same reason as set forth in apparatus claim 1.

Allowable Subject Matter

8. Claims 2-3, 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, the prior art of record fail to teach or suggest that the selecting section selects the antenna that causes the lowest interference in the adjacent cell from among the plurality of antennas that the mobile station has when a distance between the mobile station and the first base station is more than or equal to a threshold.

Regarding claim 3, the prior art of record fail to teach or suggest further comprising: a measuring section that measures reception power of the signal transmitted from the first base station for each of the plurality of antennas that the mobile station has; and a determining section that, for each of the plurality of antennas that the mobile station has, determines a usable modulation coding scheme from a plurality of beforehand prepared modulation coding schemes in accordance with the measured reception power, wherein the selecting section selects the antenna that causes the lowest interference in the adjacent cell from among the plurality of antennas that the mobile station has when the usable modulation coding schemes are the same in the plurality of

antennas that the mobile station has.

Regarding claim 5, the prior art of record fail to teach or suggest further comprising: a measuring section that measures reception power of signals transmitted from a plurality of antennas that the second base station has, for each of the plurality of antennas that the mobile station has and for each of a plurality of antennas that the second base station has; and a combining section that combines the measured reception power for each of the plurality of antennas that the mobile station has to obtain combined reception power, wherein as the antenna that causes the lowest interference in the adjacent cell, the selecting section selects an antenna with the lowest combined reception power from among the plurality of antennas that the mobile station has.

Regarding claim 6, the prior art of record fail to teach or suggest further comprising: a first measuring section that measures reception power of the signal transmitted from the first base station for each of the plurality of antennas that the mobile station has; and a second measuring section that measures reception power of the signal transmitted from the second base station for each of the plurality of antennas that the mobile station has; and a calculating section that calculates a ratio of the reception power measured in the second measuring section to the reception power measured in the first measuring section for each of the plurality of antennas that the mobile station has, wherein as the antenna that causes the lowest interference in the adjacent cell, the selecting section selects an antenna with the smallest ratio calculated in the calculating section from

among the plurality of antennas that the mobile station has.

Regarding claim 7, the prior art of record fail to teach or suggest further comprising: a first measuring section that measures reception power of signals transmitted from a plurality of antennas that the first base station has, for each of the plurality of antennas that the mobile station has and for each of a plurality of antennas that the first base station has; a second measuring section that measures reception power of signals transmitted from a plurality of antennas that the second base station has, for each of the plurality of antennas that the mobile station has and for each of a plurality of antennas that the second base station has; a combining section that combines the reception power measured in the first measuring section and the reception power measured in the second measuring section for each of the plurality of antennas that the mobile station has and for each base station to obtain combined reception power; and a calculating section that calculates a ratio of the combined reception power on the second base station to the combined reception power on the first base station for each of the plurality of antennas that the mobile station has, wherein as the antenna that causes the lowest interference in the adjacent cell, the selecting section selects an antenna with the smallest ratio calculated in the calculating section from among the plurality of antennas that the mobile station has.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Proctor, Jr. et al. (US 6,404,386) teach transmission antenna directivity used at the mobile station in order to reduce interference with neighboring cells (see entire document).

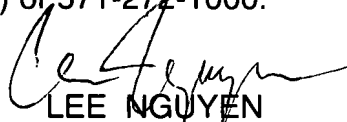
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is 571-272-7854. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NAY A. MAUNG can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LEE NGUYEN
Primary Examiner
Art Unit 2618